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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

ROSSI, JESSICA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,850

Applicant(s)

SAKSA ET AL.

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/15/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A (appears to be claim 3), drawn to using a piezo-electric crystal to separate the adhesive into drops as disclosed in sections [0010-0011] of the specification.

Species B (appears to be claim 4), drawn to using a thermal ink jet as disclosed in sections [0010-0011] of the specification.

Species C (appears to be claim 5), drawn to using a continuous ink jet as disclosed in sections [0010-0011] of the specification.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with Mr. Limon on 10/28/04 a provisional election was made with traverse to prosecute the invention of Species A, claim 3. Affirmation of this election must be made by applicant in replying to this Office action. Claims 4-5 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. Note rejoinder of Species will be considered upon the discovery of allowable subject matter depending on the basis thereof.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Priority

5. It is noted Applicant claims priority to parent application US Serial No. 09/981,134 in the Transmittal of New Application filed on 7/22/03. However, the parent application has since issued as US PAT 6,749,707 and therefore Applicant must amend the specification accordingly.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 6, it recites the limitation "the first material" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change this phrase to --the first portion of the material--.

Regarding claim 7, it recites the limitation "the step of depositing material" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change this phrase to --the step of depositing adhesive--.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US 2002/0128340) in view of Bradley (US 5946834; provided in IDS), or alternatively, Bradley in view of Young et al.

With respect to claim 1, Young is directed to a method of depositing an adhesive in a manufacturing process for an assembled paper product (sections [0017] and [0109]). The

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reference teaches providing a material to be formed into the product, providing an adhesive application device including an ink jet printing head, depositing an adhesive pattern onto a surface of a first portion of the material using the ink jet printing head, and forming the product (sections [0017], [0109], [0114]).

The reference is silent as to a reservoir containing the adhesive and forming the product by bonding a second portion of the material to the first portion using the adhesive.

Young teaches using any of a variety of commercially available ink jet printers to deposit the adhesive such as piezoelectric, thermal, and continuous ink jet printers (section [0114]) wherein the skilled artisan would have readily appreciated these ink jet printers being known for having a reservoir for containing the material to be printed.

Young teaches forming the material into a variety of products, including greeting cards (last sentence in section [0017]). It is known in the art to make a greeting card by depositing an adhesive onto selected areas of a first portion of a paper material and forming the card by bonding a second portion of the material to the first portion of the material using the adhesive deposited onto the first portion, as taught by Bradley (column 2, lines 32-36).

Therefore, it would have been obvious to the skilled artisan at the time the invention was made to form the greeting card of Young by bonding a second portion of the material to the first portion having the adhesive thereon because such is known in the art, as taught by Bradley, where this allows for the formation of 3D greeting cards.

Bradley teaches automated application of the adhesive (column 2, lines 33-34) wherein the skilled artisan reading the reference as a whole would have appreciated that a particular type of device for this automated application is not critical to the invention. Therefore, alternatively,

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it would have been obvious to the skilled artisan at the time the invention was made to deposit the adhesive of Bradley onto the selected areas of the first portion of the material using an ink jet printing head because such is known in the art, as taught by Young, wherein such a technique works well for deposition of adhesive in a pattern.

Regarding claim 2, the skilled artisan would have readily appreciated that the position of the ink jet printing head relative to the material would have to be changed in order to create the adhesive pattern of Young.

Regarding claim 3, Young teaches such (section [0114]).

Regarding claim 7, selection of a particular adhesive pattern would have been within purview of the skilled artisan. However, the skilled artisan would have readily appreciated that the types of ink jet printers taught by Young are known to deposit material in a line.

10. Claims 1-3 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. and Bradley, or alternatively, Bradley and Young et al. as applied to claim 1 above, and further in view of Hayes (US 5681757; provided in IDS).

With respect to claim 1, it is noted the examiner interpreted the Young reference such that the ink jet printing head includes a reservoir for the adhesive. If such is not taken to be so, it would have been obvious to contain the adhesive in a reservoir because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (column 2, lines 55-67).

Regarding claim 2, it is noted the examiner interpreted the Young reference such that the position of the ink jet printing head of Young is changed relative to the material. If such is not taken to be so, it would have been obvious to change the position of the ink jet printing head of

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Young relative to the material because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (column 2, line 67 – column 3, line 2), where this allows for the creation of a more complex 2D pattern.

Regarding claim 6, Young is silent as to controlling the amount of adhesive being deposited on the material. It would have been obvious to control the amount of adhesive being deposited because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (abstract; column 3, lines 38-41), wherein this prevents the unwanted accumulation of excess adhesive on the material.

Regarding claim 8, Young is silent as to controlling the thickness of the line of adhesive. It would have been obvious to the skilled artisan at the time the invention was made to control the thickness of the line of adhesive because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (column 3, lines 61-63; column 11, lines 54-55), wherein this prevents the unwanted accumulation of excess adhesive on the material.

Regarding claim 9, Young is silent as to adjusting the viscosity of the adhesive in the reservoir prior to the step of depositing. It would have been obvious to the skilled artisan at the time of the invention to adjust the viscosity of the adhesive in the reservoir because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (column 6, lines 57-60), wherein this allows for the adhesive to be more efficiently and controllably dispensed from the printing head.

Alternatively, it would have been obvious to adjust the viscosity of the adhesive of Bradley located in the reservoir of Bradley in view of Young because such is known in the art of

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depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (column 6, lines 57-60), wherein this allows for the adhesive to be more efficiently and controllably dispensed from the printing head.

11. Claims 1-2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradley in view of Rich et al. (US 6440254).

With respect to claim 1, Applicant is directed to paragraph 9 above for a complete discussion of Bradley. Bradley is silent as to depositing the adhesive onto the first portion of the material using an ink jet printing head including a reservoir for the adhesive.

It is known in the art to make a greeting card where an adhesive pattern is deposited onto the paper material using an ink jet printing head, as taught by Rich (column 3, lines 28-32; column 4, lines 41-47; column 4, line 61-65; column 5, lines **24-26**).

Bradley teaches automated application of the adhesive (column 2, lines 33-34) wherein the skilled artisan reading the reference as a whole would have appreciated that a particular type of device for this automated application is not critical to the invention. Therefore, it would have been obvious to the skilled artisan at the time the invention was made to deposit the adhesive of Bradley onto the selected areas of the first portion of the material using an ink jet printing head because such is known in the art, as taught by Rich, wherein such a technique works well for deposition of adhesive in a pattern.

As for a reservoir, the skilled artisan would have readily appreciated that ink jet printers have a reservoir for containing the material to be deposited.

Regarding claim 2, the skilled artisan would have readily appreciated that the position of the ink jet printing head relative to the material would have to be changed in order to create the adhesive pattern of Rich (Figure 5; column 5, lines 18-19).

Regarding claim 7, selection of a particular adhesive pattern would have been within purview of the skilled artisan. However, the skilled artisan would have readily appreciated that ink jet printers are known to deposit material in a line.

12. Claims 1-3 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradley and Rich et al. as applied to claim 1 above, and further in view of Hayes.

With respect to claim 1, it is noted the examiner interpreted the Rich reference such that the ink jet printing head includes a reservoir for the adhesive. If such is not taken to be so, it would have been obvious to contain the adhesive in a reservoir because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (column 2, lines 55-67).

Regarding claim 2, it is noted the examiner interpreted the Rich reference such that the position of the ink jet printing head of Rich is changed relative to the material. If such is not taken to be so, it would have been obvious to change the position of the ink jet printing head of Rich relative to the material because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (column 2, line 67 – column 3, line 2), where this allows for the creation of a more complex 2D pattern.

Regarding claim 3, Rich is silent as to a type of ink jet printer. Selection of a particular type would have been within purview of the skilled artisan depending on the desired pattern to be formed; however, it would have been obvious to use a piezo-electric ink jet printer to separate

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the adhesive into dots because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (column 2, lines 55-67), wherein this allows for deposition of the adhesive with a high degree of precision.

Regarding claim 6, Rich is silent as to controlling the amount of adhesive being deposited on the material. It would have been obvious to control the amount of adhesive being deposited because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (abstract; column 3, lines 38-41), wherein this prevents the unwanted accumulation of excess adhesive on the material.

Regarding claim 8, Rich is silent as to controlling the thickness of the line of adhesive. It would have been obvious to the skilled artisan at the time the invention was made to control the thickness of the line of adhesive because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (column 3, lines 61-63; column 11, lines 54-55), wherein this prevents the unwanted accumulation of excess adhesive on the material.


Regarding claim 9, Rich is silent as to adjusting the viscosity of the adhesive in the reservoir prior to the step of depositing. It would have been obvious to the skilled artisan at the time of the invention to adjust the viscosity of the adhesive in the reservoir because such is known in the art of depositing adhesive in a pattern onto the surface of a material using an ink jet printer, as taught by Hayes (column 6, lines 57-60), wherein this allows for the adhesive to be more efficiently and controllably dispensed from the printing head.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine R. Copenheaver can be reached on 571-272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jessica L. Rossi
Patent Examiner
Art Unit 1733